## USDA's New School Lunch and Breakfasí Recipes... A Tool Kit for Healthy School Meals!

### Breakfast Burrito with Tomato Salsa. Tabouleh. Chicken Stir-Fry. Baked Cajun Fish. Vegetable Chili. Sound good?

These are just a few of the more than 50 recipes USDA has developed as part of the Healthy Kids Initiative. The recipes are designed to help you serve "Total Quality School Meals" to your young customers. "Total Quality School Meals" are meals that

- taste good
- are nutritious
- **are** attractive

# Why are "total quality" school meals so important? Because children's health is important!

Schools have a special role in enhancing and maintaining children's health since roughly one-quarter of a young person's time is spent in this environment. School meal programs can help foster healthful behaviors, particularly in the areas of nutrition and physical fitness.

By serving wholesome and attractive meals at school, you can help children improve their attitudes towards education and health. You can also help them have healthier lives...now and in years to come.

# To help you use the new recipes from USDA, this training manual:

- provides background on how the recipes were selected, developed, and field-tested
- takes you through each section of the recipe format, explaining how the information is organized
- explains and demonstrates the uses of the nutrient analysis provided for each recipe
- includes instructions on substituting ingredients and adjusting recipes, as well as tips for maximizing quality



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# What's Special About The New Recipes?

# What's special about the new recipes? Plenty!

# For one thing, the recipes reflect what's happening with nutrition today.

You'll find them to be as low in fat as possible, without losing flavor and appeal. They include lots of fruits, vegetables, and grains, and they'll help you add variety.

A menu of these new recipes will be a *healthy* experience for children. You'll be giving them needed nutrients and energy — without a lot of added fat. You'll also be helping them *learn* what it means *to eat for good health*.

# The recipes will help you "win kids over" with some exciting new flavors...and help you prepare some of their all-time favorites in ways that make them more healthful.

A palette of diverse cultures is presented here. You'll find, for example, Tabouleh and a Gyro Sandwich from the Middle East...Stir-Fry and Teriyaki Sauce from the Orient.

Adding a taste of Europe are such things as French Toast Sticks from France, Baked Fish Scandia from the Netherlands, Herbed Broccoli and Cauliflower Polonaise from Poland, and Minestrone, Vegetable Lasagna, and Chicken Tetrazzini from Italy. The recipes also reflect the rich diversity of the United States. Southwest flavor is unmistakable in several. There are Chicken Fajitas, Marinated Black Bean Salad, Taco Pie, Vegetable Chili, and Arroz con Queso (Rice with Cheese), to name a few. The popular taste of New Orleans culture is found in the Baked Cajun Fish.

# The recipes have been carefully developed with both kids' TASTES and their good HEALTH in mind.

To support the ideal of lowered fat, the recipes call for reduced-fat mozzarella and cheddar cheeses as well as reduced-fat mayonnaise, lowfat milk, and lowfat yogurt.

Versions of lower fat Brownies and Chocolate Cake are included, using applesauce as a fat substitute. The taste of the recipes is the same familiar one, just the fat content has been changed.

The use of low-sodium soup and gravy bases helps to reduce the sodium level in the recipes.

# AND, the recipes have been designed with YOU — the food preparer — in mind.

We hope that as you read through and finally use these recipes, you will get a sense of our efforts to tailor the recipes to your needs. We've written the recipes with a limited number of steps, bearing in mind the equipment which you might have available.

# What the Recipes Will lielp You Do...

The standardized recipes provided for you in this packet are designed to help you serve healthful, attractive breakfasts and lunches that will appeal to your student customers. To meet the needs of today's school foodservice programs, recipes must:

Taste panels of adults, and later students, rated products for their texture, taste, aroma, appearance, and overall quality. As a result of this testing, the recipes were adapted to meet the needs of your students.

- be acceptable to students
- be economical
- be lower in fat and moderate in the use of added salt
- use the minimum number of ingredients and steps for preparation
- make maximum use of USDA-donated commodities
- accommodate regional and local needs and preferences

# By using these recipes, you should be able to do the following:

### 1) Ensure product quality.

The recipes developed for this project were fieldtested in seven regions across the United States by foodservice managers, employees, and students.

### 2) Accurately predict number of portions.

This will allow you to simplify purchasing procedures, reduce the amount of unnecessary inventory, and eliminate excessive amounts of leftovers.

# 3) Adjust the flavoring of each recipe to meet the expectations of your students.

Many of the recipes provide information concerning additional ingredients that can be used to adjust the overall flavor of a recipe to more closely meet regional preferences. You'll find these listed on individual recipe cards under optional ingredients or in a section called "Special Tips."

# 4) Obtain maximum benefit from the use of USDA-donated foods.

Because schools often use USDA-donated foods in preparing meals, many of the recipes were developed and tested using available USDA commodities. This will help ensure that the final product of any recipe produced in the field will meet the same high standards for *quality* and *quantity* intended by the recipe developers.

# 5) Evaluate the nutritional value of each recipe.

A nutritional analysis has been provided for each of the recipes. All of the recipes have been developed with the goal of expanding variety, reducing the overall level of added fat, and increasing dietary fiber.

# 6) Evaluate the specific contribution of each recipe toward the School Lunch Food-Based Menu System.

For your convenience, the food contribution toward the School Lunch Food-Based Menu System for each portion of a recipe is specified on the recipe format.

### 7) Increase employee confidence.

The recipes provide clear, concise directions that cover all aspects of production. This will help improve employee morale by reducing the confusion associated with non-standardized recipes.

First-rate results will also boost morale. The recipes are reliable and will produce consistent, high-quality meals. Employees will be confident and proud that they are serving the best quality products available.

# Quality - Quality - Quality

# The items you serve to each student are only as good as the quality of ingredients put into each recipe!

To ensure first-rate results:

### Purchase the finest quality possible.

If the brand of lemon gelatin you select is weakly flavored because it is inexpensive, you will not have a strong lemon flavor in the end product.

If the brand of chicken base has "salt" listed as the first ingredient, meaning it is the most *prevalent* ingredient, your Cream of Chicken Soup will not have a meaty chicken flavor.

### Store and handle carefully.

If the broccoli you put into the Broccoli Salad is old, dried, and wilted, the salad will not be crisp. And, many nutrients will be lost by the time you serve it.

If the frozen green beans in the Corn and Green Bean Casserole have been improperly handled by either the distributor or you — thawed and refrozen, thawed and refrozen — your end product will not be of the best quality possible.

Purchase from reliable sources and check your storage and handling procedures to assure topnotch *quality - quality - quality*.

### Check your cooking techniques.

If your cakes and brownies are overbaked because you are not using an oven thermometer to maintain exact oven temperatures, they will be dried out, tough, and crumbly.

If the Stir-Fry is not cooked in batches, or if it is *held* for a long period of time, the vegetables will not be brightly colored and crispy. They will be limp and uninviting.

Batch-cooking is cooking in small quantities to maintain high quality throughout the serving period. Each preparation should not exceed what can be served on the line in 15 minutes. This means there will be *continuous* cooking throughout the meal to guarantee quality.

# Working With The New Recipes

On the following pages, we'll take a close look at how the information is organized on the recipe cards.

In this first example, the top section of the Chicken Stir-Fry recipe is highlighted.

# Sfir-Fry (Chicken, Beef, Pork) Meat • Vegetable Main Dishes D-39

Ingredients	50 Se	rvings	100 Se	ervings	For	Directions	
ingrements	Weight	Measure	Weight	Measure	Servings	Directions	
Low-sodium soy sauce Cornstarch Ground ginger Granulated garlic White pepper		1 cup		2 cups		Dissolve cornstarch in soy sauce.     Add spices.	
Low-sodium chicken stock, non-MSG		2 qt		1 gal		Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.     Cook for 3 to 5 minutes, until thickened. Remove from heat.	
Fresh mixed vegetables:  *Fresh broccoli, chopped  *Presh carrots, peeled,  '/a" slices  *Onions, diced  OR  †Frozen mixed Oriental  vegetables  Vegetable oil	5 lb 10 oz 1 lb 4 oz 12 lb 8 oz	1 gal 2 cups 1 qt 3 gal 2 qt	11 lb 4 oz 2 lb 8 oz 25 lb	4 gal		Prepare no more than 50 portions per batch.  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steam table pan. Keep warm.	
Skinless, boneless chicken breasts, cut 2" x 2" Vegetable oil		1 cup		2 cups		Saute chicken in oil for 3 to 5 minutes until no signs of pink remain. Add chicken to vegetables in steam table pan. Add sauce and mix to coat chicken and vegetables. Heat to serving temperature.	

At the top of the card, you'll find:

- the recipe title
- the recipe's contribution to the School Lunch Food-Based Menu System Guidelines
- the recipe file location, which you will use to add the recipe to the USDA quantity recipes you already have (*Quantity Recipes for School Food Service*, Program Aid #1371)

### Here are more details on each:

### The recipe title:

Recipe titles have been kept as straightforward as possible. Descriptive words related to regions, texture, or flavor have been avoided. Phonetic pronunciations have been provided for the recipes when necessary.

### The recipe's contribution to the School Lunch Food-Based Menu System Guidelines:

This indicates the general area/areas in which a particular recipe contributes to the School Lunch Food-Based Menu System. Our sample recipe, Chicken Stir-Fry, contributes to both the Meat and Vegetable categories.

### Recipe file location:

In this package you will find new recipes from the following nine categories:\*

- B. Bread and Cereal Products
- C. Desserts
- D. Main Dishes
- E. Salads and Salad Dressings
- F. Sandwiches
- G. Sauces, Gravies, and Seasoning Mixes
- H. Soups
- I. Vegetables
- J. Breakfast

\*Please note that this package does not include Category A because there were no additions to it. Please refer to your original file for Category A. Also please note that Category J, Breakfast, is new.

Each recipe in the collection has been assigned: (1) a specific category and (2) a number indicating its place within this category.

For example, a recipe with a designation of C-17 would indicate that this recipe is #17 within the Desserts category.

### Ingredients:

In this next example, the *first column* of the Chicken Stir-Fry recipe is highlighted. This section lists the ingredients.

### Sfir-Fry (Chicken, Beef, Pork)

Meat • Vegetable Main Dishes D-39

Ingredients	50 Servings		100 Servings		For	Directions	
ingretients	Weight	Measure	Weight	Measure	Servings	Directions	
Low-sodium soy sauce		1 cup	8 oz	2 cups		Dissolve cornstarch in soy sauce.     Add spices.	
Low-sodium chicken stock, non-MSG		2 qt		1 gal		Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.     Cook for 3 to 5 minutes, until thickened. Remove from heat.	
OR †Frozen mixed Oriental	5 lb 10 oz 1 lb 4 oz 12 lb 8 oz	1 gal 2 cups 1 qt 3 gal 2 qt	11 lb 4 oz 11 lb 4 oz 2 lb 8 oz 25 lb	2 gal 1 qt 2 qt		Prepare no more than 50 portions per batch.  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steam table pan. Keep warm.	
Skinless, boneless chicken breasts, cut 2" x 2" Vegetable oil	9 lb		18 lb	2 cups		5. Saute chicken in oil for 3 to 5 minutes until no signs of pink remain. Add chicken to vegetables in steam table pan. Add sauce and mix to coat chicken and vegetables. Heat to serving temperature.	

## First, note *the order* in which ingredients are listed:

Ingredients are listed in the same order as they are required for production. Horizontal lines separate into groups the ingredients that are used together.

Second, note *the form* in which ingredients are listed.

You'll see that our sample recipe specifies:

Fresh carrots, peeled, 1/4" slices

This tells you the carrots are to be purchased fresh, peeled, and then sliced into 1/4"-thick slices prior to being used in the recipe.

### ♦ On all of the recipes:

The purchase state of the ingredient (such as fresh, frozen, canned) appears before the ingredient name. And, the form of the ingredient (such as peeled, sliced, etc.) comes after the ingredient name.

In order to obtain the maximum possible quality during production, it is *very important* that you follow the recipe exactly. The *purchase state* (fresh, canned, frozen, etc) of your ingredients and *the form* (peeled, sliced, etc.) should always be the same as listed in the recipe.

All of the recipes will be equally successful whether USDA-donated commodity foods or commercially available ingredients are used. However, where possible, the recipes have been developed and standardized using USDA commodity products.

When purchasing ingredients, remember to:

Select the best possible quality.

The quality of the final product will rely heavily on the quality of ingredients used.

Purchase products that will produce the "healthiest" overall product.

For example, our sample recipe for Chicken Stir-Fry calls for chicken stock, non-MSG (without monosodium glutamate). When purchasing bases, select brands that do <u>not</u> contain MSG and that have a moderate level of sodium (salt).

Read food labels carefully. Food manufacturers must list ingredients in descending order of predominance by weight. So, if salt is the first ingredient listed, you know that the product contains more salt than anything else.

### Alternative ingredients:

Alternative ingredients are listed in many of the recipes to give you flexibility when ordering. They may also help you accommodate limitations in labor or equipment.

This example shows how alternative ingredients appear in the recipe format. Several lines are highlighted.

# Stir-Fry (Chicken, Beef, Pork) Meat • Vegetable Main Dishes D-39

Ingredients	50 Se	rvings	100 Servings		For	Directions
Ingredients	Weight	Measure	Weight	Measure	Servings	Directions
Low-sodium soy sauce	4 oz	1 cup	8 oz	6 Tbsp		Dissolve cornstarch in soy sauce.     Add spices.
Low-sodium chicken stock, non-MSG		2 qt		1 gal		Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.     Cook for 3 to 5 minutes, until thickened. Remove from heat.
Fresh mixed vegetables: *Fresh broccoli, chopped *Fresh carrots, peeled,	5 lb 10 oz	2 gal	11 lb 4 oz	4 gal		Prepare no more than 50 portions per batch.
*Onions, dicedOR	5 lb 10 oz 1 lb 4 oz	1 gal 2 cups 1 qt	11 lb 4 oz 2 lb 8 oz	2 gal 1 qt 2 qt		Saute sliced carrots in oil for    minutes. Add onions, cook for    more minute. Add broccoli and
†Frozen mixed Oriental vegetables	12 lb 8 oz	3 gal 2 qt	25 lb			cook for 2 more minutes. Remove to steam table pan. Keep warm.
Vegetable oil		1/2 cup		1 cup		_
Skinless, boneless chicken breasts, cut 2" x 2" Vegetable oil			18 lb			5. Saute chicken in oil for 3 to 5 minutes until no signs of pink remain. Add chicken to vegetables in steam table pan. Add sauce and mix to coat chicken and vegetables. Heat to serving temperature.

# As you can see, alternative ingredients are listed on separate lines separated by the word "**OR**." It is important that you select only *one* of the options provided. Do *not* add both the primary and the alternative ingredients to the recipe.

### In the Chicken Stir-Fry example:

You may choose to use the fresh mixed vegetables listed in the ingredients.

- OR -

You may choose to use the alternative, frozen mixed Oriental vegetables.

### Optional ingredients:

Some of the recipes include optional ingredients. These are typically used for seasoning and garnishing. If an ingredient is optional, the word "(optional)" will immediately follow it on the ingredient list.

Optional ingredients may be used to increase a recipe's appeal in a particular area or region. While certain ingredients may be preferred by students in some regions of the country, they may not appeal to others.

Optional ingredients may also be used to change the meal pattern contribution.

However, it's important to note that optional ingredients are *not included* in the School Lunch Food-Based Menu System contribution or the Nutritional Analysis.

It's also important to note that there are no special instructions under "Directions" for using the optional ingredients.

# Weights and measures for 50 and 100 servings:

In this example, the *center* of the recipe format is highlighted. This section provides the quantities you will need for producing 50 and 100 portions of the recipe.

# Stir-Fry (Chicken, Beef, Pork) Meat • Vegetable Main Dishes D-39

Ingredients	50 Servings		100 Se	ervings	For	Directions	
Ingredients	Weight	Weight Measure		Weight Measure		Directions	
Low-sodium soy sauce Cornstarch Ground ginger Granulated garlic White pepper		1 cup		1 tsp 6 Tbsp		Dissolve cornstarch in soy sauce.     Add spices.	
Low-sodium chicken stock, non-MSG		2 qt		1 gal		Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.     Cook for 3 to 5 minutes, until thickened. Remove from heat.	
Fresh mixed vegetables:  *Fresh broccoli, chopped  *Fresh carrots, peeled,  '\a' slices  *Onions, diced  OR  †Frozen mixed Oriental vegetables	5 lb 10 oz 1 lb 4 oz 12 lb 8 oz	1 gal 2 cups 1 qt 3 gal 2 qt	11 lb 4 oz 2 lb 8 oz 25 lb			Prepare no more than 50 portions per batch.  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steam table pan. Keep warm.	
Skinless, boneless chicken breasts, cut 2" x 2" Vegetable oil	9 lb	1 cup	18 lb			5. Saute chicken in oil for 3 to 5 minutes until no signs of pink remain. Add chicken to vegetables in steam table pan. Add sauca alm mix to coat chicken and vegetables. Heat to serving temperature.	

# Weight measurements are given for dry and solid ingredients.

The weight measurements are written in pounds (lb) and ounces (oz).

Because it is sometimes necessary to use volume measure, the volume equivalents have also been provided for the dry and solid ingredients if the amount is more than 2 ounces.

# Volume measurements are given for liquid ingredients.

The volume measurements include:

- teaspoons (tsp)
- ▶ tablespoons (Tbsp)
- cups
- **p** quarts (qt)
- **p** gallons (gal)

Spices, flavorings, and other ingredients of 2 ounces or less are given a volume measurement since most scales are not able to measure such a small quantity accurately.

### A note about baking:

When measuring dry ingredients you will be using in a baked product, it is very important that you measure the ingredients by weight whenever possible. This is because even slight variations in measurement can alter the quality of the final product.

Consider the following:

- One pound of *unsifted* all-purpose flour can range from  $2^{1}/_{2}$  cups to 4 cups.
- One pound of *sifted* all-purpose flour can range from 3 cups to  $4^{1/2}$  cups.

These examples make it easy to see why measuring the flour for a baked product only by *volume* can result in an inconsistent product.

### Directions:

In our next example, the far-right column is highlighted. This section lists all the steps needed to prepare the recipe.

Sfir-Fry (Chick	en, Beef, Pork)	
Meat • Vegetable		Main Dishes D-39

Ingredients	50 Se	rvings	100 Se	ervings	For	Directions
ingretients	Weight	Measure	Weight	Measure	Servings	Directions
Low-sodium soy sauce	4 oz	1 cup	8 oz			Dissolve cornstarch in soy sauce.     Add spices.
Low-sodium chicken stock, non-MSG		2 qt		1 gal		Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.     Cook for 3 to 5 minutes, until thickened. Remove from heat.
Fresh mixed vegetables:  *Fresh broccoli, chopped  *Fresh carrots, peeled,  '/a" slices  *Onions, diced  OR  †Frozen mixed Oriental vegetables  Vegetable oil	5 lb 10 oz 1 lb 4 oz 12 lb 8 oz	1 gal 2 cups 1 qt 3 gal 2 qt	11 lb 4 oz 2 lb 8 oz 25 lb	4 gal		Prepare no more than 50 portions per batch.  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steam table pan. Keep warm.
Skinless, boneless chicken breasts, cut 2" x 2" Vegetable oil		1 cup		2 cups		Saute chicken in oil for 3 to 5 minutes until no signs of pink remain. Add chicken to vegetables in steam table pan. Add sauce and mix to coat chicken and vegetables. Heat to serving temperature.

Each step is numbered in sequence and is directly across from the ingredients to which it applies. To facilitate production, closely related steps are grouped together with horizontal lines separating the groups.

### The directions include instructions on:

- mixing speeds and times
- cooking procedures
- panning procedures
- baking times and temperatures
- portioning directions
- garnishing and serving instructions

The directions do not account for any prepreparation work that must be done in order to prepare the ingredients for recipe production. However, when scheduling, it is important to account for the prepreparation phase of production.

While the pre-preparation work may be minimal for some recipes, other recipes may benefit if some of the basic pre-preparation work is completed well in advance of the actual production.

For example, if you complete the pre-preparation work for the French Toast recipe *the day before it is to be served,* you'll get a better quality product in *less* time. This is stated in Step 4 of the directions for this recipe.

We encourage you to read over the directions provided for each of the recipes carefully *before* you begin production. Use them as you would a road map before starting out on a trip, and keep in mind the following:

In order to obtain the maximum possible quality from each recipe and ensure that the School Lunch Food-Based Menu System Guidelines are met, all of the procedures outlined in this section of the recipe must be followed *precisely*.

For example, when you read the recipe for Chicken Stir-Fry, you will see after Step 3:

"Prepare no more than 50 portions per batch."

This is important because if you prepare more than 50 portions per batch, you will be holding the product too long. It will lose its crispness, color, and nutritional value. The recipe format also includes a variety of other useful information, such as:

- portion size
- the specific contribution of each serving toward the School Lunch Food-Based Menu System Guidelines
- yield for 50 and 100 servings
- variations
- marketing guide for selected items
- nutrients per serving

You will find this information on the *last* page of each recipe. Most recipes are two pages long; however, some are three or four.

Again using the Chicken Stir-Fry example, let's first look at portion size, contribution to School Lunch Food-Based Menu System Guidelines, and yield. These sections are highlighted on page 17.

**SERVING:** 

1 cup (2 No. 8 scoops) provides 2 ounces of meat and 5/8 cup of vegetable

50 servings: 23 lb 4 oz 100 servings: 46 lb 8 oz

### Serving:

The portion size and the suggested portioning tools are listed here.

### **Contribution to School Food-Based** Menu System:

This section of the recipe format provides information on the specific contribution of each serving toward the School Lunch Food-Based Menu System Guidelines.

These Guidelines show the requirements by age/grade group for Meat/Meat Alternate, Vegetable/Fruit, and Grains/Breads categories.

In our sample recipe, a 7-ounce portion of Chicken Stir-Fry contributes 2 ounces of cooked, lean meat and 5/8 cup of vegetables.

### Yield:

The total recipe yield for both 50 and 100 servings is stated in weight (pounds, ounces). For some recipes, the total yield is also stated by volume (gallons, cups).

### Variations:

Some of the recipes in the collection include instructions for a variation (or variations) of the basic recipe, and others do not. In our Chicken Stir-Fry example below, two variations are given.

### **Variations**

### a. Beef Stir-Fry

**50 servings:** Follow Steps 1-4. In Step 5, use 10 lb 4 oz of boneless beef top round, cut in  $^{1}/_{2}$ " cubes. Saute beef cubes for 2 to 3 minutes, until no signs of pink remain.

**100 servings:** Follow Steps 1-4. In Step 5, use 20 lb 8 oz of boneless beef top round, cut in  $^{1}/_{2}$ " cubes. Saute beef cubes for 2 to 3 minutes, until no signs of pink remain.

### b. Pork Stir-Fry

**50 servings:** Follow Steps 1-4. In Step 5, use 11 lb 9 oz of boneless pork shoulder or loin, cut in  $\frac{1}{2}$ " cubes. Saute pork cubes for 3 to 5 minutes, until no signs of pink remain.

**100 servings:** Follow Steps 1-4. In Step 5, use 23 lb 2 oz of boneless pork shoulder or loin, cut in  $\frac{1}{2}$ " cubes. Saute pork cubes for 3 to 5 minutes, until no signs of pink remain.

If a recipe has a variation, follow all of the standard directions in the basic recipe, changing only those specified in the variation instructions.

All of the variations have been tested and standardized using the same procedures outlined in the basic recipe. As a result, you can be sure of product quality and yield.

However, it's important to remember that the School Lunch Food-Based Menu System credit and the Nutrient Analysis provided in the recipe apply to the *basic recipe only*.

### Marketing Guide for Selected Items

The Marketing Guide for Selected Items provides special purchasing information on foods that will sustain trimming loss during pre-production. These foods are marked with an asterisk (\*) in the ingredients column of the recipe format.

In the Chicken Stir-Fry example below, you'll see information given for three ingredients. Turning back to page 14, you'll see each of these has an asterisk preceding it.

Marketing Guide for Selected Items						
Food as Purchased	For 50- Serving Recipe	For 100- Serving Recipe	For Serving Recipe			
Broccoli	6 lb 15 oz	13 lb 14 oz				
Carrots	8 lb 1 oz	16 lb 2 oz				
Onions	1 lb 7 oz	2 lb 14 oz				

### What you need to know:

For items marked with an asterisk, the quantity listed under "Weight" and "Measure" in the recipe is the EP (Edible Portion). This is the quantity required for production and therefore does not account for trimming loss.

The Marketing Guide shows the AP (As Purchased) quantity required when ordering. In our example, 6 pounds 15 ounces of broccoli must be *purchased* (AP) in order to yield 5 pounds 10 ounces (EP), the amount required to produce 50 portions of Chicken Stir-Fry.

### Nutrients Per Serving

As you can see in the Chicken Stir-Fry example below, this section of the recipe format provides information on 12 nutrients.

Nutrients Per Serving							
Calories	208	Saturated Fat	1.4 g	Iron	1.5 mg		
Protein	22 g	Cholesterol	47 mg	Calcium	51 mg		
Carbohydrate	12 g	Vitamin A 1355 RE/13	3640 IU	Sodium	251 mg		
Total Fat	8.1 g	Vitamin C	46 mg	Dietary Fi	ber 3 g		

### The nutrients shown on each recipe are:

calories	vitamin A
protein	vitamin C
carbohydrate	iron
total fat	calcium
saturated fat	sodium
cholesterol	dietary fiber

Three nutrients — fat, saturated fat, and iron — have been calculated to the tenth of a unit. All others have been rounded to the nearest whole unit. When the level of one of these nutrients is .4 or less, it is shown as 0.

All of the recipes in this collection were analyzed for their nutritive value. For a more detailed explanation of the nutrient analysis of these recipes, see page 34 of this manual.

For information on the steps taken to reduce the amount of fat in these new recipes, see page 36.

### Special Tips:

Some of the recipes include Special Tips. On the Chicken Stir-Fry, for example, you'll find the following:

Special Tips:

- 1) For an authentic Oriental flavor, substitute 1/4 cup of sesame oil for 1/4 cup of vegetable oil to saute chicken, for each 50 servings.
- 2) Fresh vegetable mixes can be varied to include combinations of bean sprouts, broccoli, cabbage, celery, Chinese pea pods, onions, peppers, and water chestnuts.

# Here's another example, this one from the recipe for Chicken Fajitas:

Special Tips:

- 1) If a grill is not available, a steam-jacketed kettle may be used to saute the chicken.
- 2) Lowfat sour cream (1 Tbsp per serving) and salsa (2 Tbsp per serving) make excellent garnishes.
- 3) This makes an attractive lunch plate when served with Refried Beans (I-15).

As you can see from these examples, the Special Tips offer information that can help you in a variety of ways. Some, like the first Special Tip in the Chicken Stir-Fry, offer advice on increasing the authenticity of the recipe. Others may:

- offer ways to make production easier
- suggest optimal methods for storage
- provide alternative serving suggestions
- suggest appropriate garnishes

## Adjusting Recipe Yields

Each recipe lists the quantities you will need to produce 50 and 100 servings. However, to meet your specific needs, you may need to adjust the number of servings. To help you do this, the recipe format includes a column entitled "For \_\_\_\_\_ Servings." This column is highlighted in the example below.

Stir-Fry (Chicken, Beef, Pork)	
Meat • Vegetable	Main Dishes D-39

Ingredients	50 Servings		100 Servings		For	Directions
ingredients	Weight	Measure	Weight	Measure	Servings	Directions
Low-sodium soy sauce		1 cup	8 oz			Dissolve cornstarch in soy sauce.     Add spices.
Low-sodium chicken stock, non-MSG		2 qt		1 gal		Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.     Cook for 3 to 5 minutes, until thickened. Remove from heat.
Fresh mixed vegetables:  *Fresh broccoli, chopped  *Fresh carrots, peeled,	5 lb 10 oz	2 gal	11 lb 4 oz	4 gal		Prepare no more than 50 portions per batch.
*Onions, diced OR	5 lb 10 oz 1 lb 4 oz	1 gal 2 cups 1 qt	11 lb 4 oz 2 lb 8 oz	2 gal 1 qt 2 qt		Saute sliced carrots in oil for    minutes. Add onions, cook for    more minute. Add broccoli and
†Frozen mixed Oriental vegetables Vegetable oil				1 cup		cook for 2 more minutes. Remove to steam table pan. Keep warm.
		/2 Cup		1 cup		
Skinless, boneless chicken breasts, cut 2" x 2" Vegetable oil		1 cup		2 cups		<ol> <li>Saute chicken in oil for 3 to 5 minutes until no signs of pink remain. Add chicken to vegetables in steam table pan. Add sauce and mix to coat chicken and vegetables. Heat to serving temperature.</li> </ol>

### How will you use this column?

Using a worksheet similar to the one on page 23, you'll first determine the new quantities you will need. Then you'll write in the new amounts in the spaces provided in the "For \_\_\_\_Servings" column.

# Let's convert an actual recipe from the new collection.

We'll begin by describing the proper method to use. Then we'll go through each step in two examples, using the recipe for Breakfast Burrito with Salsa. In one example, we'll *reduce* the recipe yield. In the other, we'll *increase* it.

		<b>original recipe.</b> of portions by the original port	tion size.
	3	=	
original number of portions		original portion size	original yield
Step 2: Determine the total portion size.	l new yield.	Multiply the total number of po	ortions you want by the desired
desired number	3	= desired portion	total new yield
of portions		size	total new yiela
of portions			
of portions	ıltiplying fac	size	
of portions  Step 3: Determine the "mu  new yield	ultiplying fac	size  tor." Divide the total new yield	l by the original yield.  multiplying factor
of portions  Step 3: Determine the "mu  new yield  Step 4: Determine the new	ultiplying fac	size  tor." Divide the total new yield  original yield	l by the original yield.  multiplying factor

### Now let's convert a recipe from the new collection in these two examples:

### Example 1: Reducing a Standardized Recipe

Using the recipe for Breakfast Burrito with Salsa, we're going to *reduce* the yield from 50 to 40 servings. The individual portion size will remain 3 ounces.

In the following calculation, we use lowfat milk as a sample ingredient. The original recipe calls for 6 ounces of lowfat milk for 50 servings.

### 1. What is the total yield of the original recipe?

### 2. What is the total new yield?

### 3. What is the multiplying factor?

### 4. What is the quantity needed for 40 servings?

Place 4.8 oz on the line opposite lowfat milk in the "For \_\_\_\_\_Servings" column.

### Example 2: Increasing a Standardized Recipe

Now let's *increase* the recipe yield from 50 to 75 servings. Portion size will remain 3 ounces. And we'll once again use lowfat milk as a sample ingredient.

### 1. What is the total yield of the original recipe?

50	•	3 oz		150 oz
original number	— 3 —	original portion size	_ = _	original yield

### 2. What is the total new yield?

### 3. What is the multiplying factor?

### 4. What is the quantity of lowfat milk needed for 75 servings?

Place 9 oz on the line opposite lowfat milk in the "For \_\_\_\_\_ Servings" column.

(On page 31, you'll find a blank recipe conversion sheet to use in converting other USDA recipes.)

Here's a blank page for calculations:	

	1.25	125	3	375	
Recipe Conversion Worksheet	Multiplying Factor	Number of Portions (New Yield)	Ounces/Portion (New Yield)	Total New Yield (oz)	
Recipe Con	Recipe Title: Breakfast Burrito with Salsa	100	33	300	(300  oz = filling)
	Recipe Title:	Number of Portions (Old Yield)	Ounces/Portion (Old Yield)	Total Recipe Yield (oz)	

Ingredient	Old Quantity (from Recipe)	Old Quantity	Times	Multiplying Factor	Equals	New Quantity	New Quantity (to be on Recipe)
Filling: Frozen whole eggs, thawed	14 lb 8 oz	232 oz	3	1.25	=	290.0 oz	18 lb 2 oz
Frozen corn	1 lb 4 oz	20 oz	3	1.25	II	25.0 oz	1 lb 9 oz
Lowfat milk	12 oz	12 oz	3	1.25	II	15.0 oz	15 oz
Onions, diced	1 lb 12 oz	28 oz	3	1.25	II	35.0  oz	2 lb 3 oz
Fresh tomatoes, diced	4 oz	4 oz	3	1.25	II	5.0 oz	2 oz
Prepared mustard	4 oz	4 oz	3	1.25	II	5.0~0z	2 oz
Granulated garlic	1 Tbsp + 1 tsp		3	1.25	II	5 tsp	1 Tbsp 2 tsp
Hot pepper sauce	2 Tbsp	I	3	1.25	II	2.5 Tbsp	$2 \text{ Tbsp } 1^{1/2} \text{ tsp}$
Salt	1 Tbsp + 1 tsp		3	1.25	II	1.66 Tbsp	1 Tbsp 2 tsp
Flour tortillas (at least 1.1 oz each)	100 each	100 each	3	1.25	II	125 each	125 each
Canned salsa	6 lb 4 oz	100 oz	3	1.25	II	125  oz	7 lb 13 oz
			3		II		
			3		11		

For calculations:

	0.80	40	3	120	
Recipe Conversion Worksheet	Multiplying Factor	Number of Portions (New Yield)	Ounces/Portion (New Yield)	Total New Yield (oz)	
Recipe C	Recipe Title: Breakfast Burrito with Salsa	50	3	150	(150  oz = filling)
	Recipe Title:	Number of Portions (Old Yield)	Ounces/Portion (Old Yield)	Total Recipe Yield (oz)	

Ingredient	Old Quantity (from Recipe)	Old Quantity	Times	Multiplying Factor	Equals	New Quantity	New Quantity (to be on Recipe)
Filling: Frozen whole eggs, thawed	7 lb 4 oz	116 oz	က	08'0	II	92.8 oz	5 lb 13 oz
Frozen corn	10 oz	10 oz	က	08.0	II	8.0 oz	8 oz
Lowfat milk	zo 9	zo 9	က	08.0	II	4.8 oz	2 oz
Onions, diced	14 oz	14 oz	က	08.0	II	11.2 oz	11 oz
Fresh tomatoes, diced	2 oz	2 oz	က	08.0	II	1.6 oz	2 oz
Prepared mustard	2 oz	2 oz	က	08.0	II	1.6 oz	2 oz
Granulated garlic	2 tsp		က	08.0	II	1.6 tsp	$1^{1/2}$ tsp
Hot pepper sauce	1 Tbsp		က	08.0	II	2.4 tsp	$2^{1/2}$ tsp
Salt	2 tsp	_	က	08.0	II	1.6 tsp	$1^{1/2}$ tsp
Flour tortillas (at least 1.1 oz each)	50 each	50 each	က	08.0	II	40 each	40 each
Canned salsa	50 oz	50  oz	3	08.0	II	zo 04	40  oz
			3		II		
			3		ш		

For calculations:

Recipe Title:  Number of Portions (Old Yield)  Ounces/Portion (Old Yield)	ă	Recipe Conversion Worksheet  Multi  Number of Portion	ion Work  Number o	on Worksheet  Multiplying Factor  Number of Portions (New Yield)	actor ield)		
Total Recipe Yield (oz)				Total New Yield (oz)	(zo)		
Ingredient	Old Quantity (from Recipe)	Old Quantity	Times	Multiplying Factor	Equals	New Quantity	New Quantity (to be on Recipe)
			3		II		
			က		11		
			က		Ш		
			3		II		
			3		II		
			င		II		
			က		II		
			င		II		
			က		II		
			3		II		
			င		II		
			3		Ш		
			ო		II		

### A note about working with non-standardized recipes:

As we've already seen, the total yield of each of the recipes in this packet has already been calculated and is indicated on the recipe card. However, there may be times when you want to use this same method to adjust the yield of recipes that are not standardized. In these instances, you may need to do some extra calculations.

For example, in working with nonstandardized recipes, it's a good idea to confirm the total yield of the recipe by adding the quantities of all ingredients used.

In addition, you may need to convert all of the quantities to ounces before you can calculate the total yield. For your convenience, this training manual includes a chart with basic units of measure and their equivalencies on page 39.

# More Information on The Nutrient Analysis

Thanks to the nutrient analysis, you can see at a glance what an individual serving of each recipe provides in terms of the following 12 nutrients:

calories vitamin A
protein vitamin C
carbohydrate iron
total fat calcium
saturated fat sodium
cholesterol dietary fiber

This information can help you plan balanced, nutritious meals. For example, if you decide to serve Chicken Stir-Fry:

You may wish to select an item higher in iron to serve as a second choice since one serving of the Stir-Fry contains only 1.5 mg of iron.

And, since the vitamin A content of the Chicken Stir-Fry is high, you may decide to offer a fruit dish that's high in vitamin C for dessert.

The nutrient analysis was done by computer, using the Agricultural Research Service's nutrient analysis software and:

- the most recent edition of USDA Handbook 8
- the Composition of Foods Database and
- the National Nutrient Data Base for Child Nutrition Programs

### Here's some additional background on the nutrient analysis that may be helpful as you work with the recipes:

- Each recipe was analyzed for its nutritive value using *primary ingredients only*. Alternative and optional ingredients were not included.
- The type and quantity of each primary ingredient was entered into the nutrient analysis software program based on the *market form* or purchase state given in the recipe for example, fresh, frozen, or canned.
- Adjustments for yield, nutrient retention, and moisture/fat changes were also calculated. As a result, the final nutrient analysis of the recipe reflects the final "cooked or prepared" product.

To illustrate this process, let's look at some of the steps involved in doing the nutrient analysis for the Chicken Stir-Fry recipe, using carrots as an example.

Since the recipe calls for "fresh carrots" as a primary ingredient, the food code selected from the USDA Handbook 8 — and entered into the computer — was "Carrots, raw."

The quantity for "fresh carrots, peeled" (as stated on the recipe card) was also entered.

Next, a nutrient retention factor for "stir-fried vegetable" (based on ARS data) was entered to reflect nutrient changes during the cooking process.

Finally, any moisture and/or fat loss (or gain) that would occur during cooking was entered to calculate the final recipe weight and nutrient analysis.

# The New Recipes Reduce Fat Without Losing Flavor

As you work with these new recipes, you'll find that they use reduced levels of fat. This is one important way the recipes are consistent with the Dietary Guidelines. The recipes successfully minimize fat without losing flavor because of careful attention given to both:

- ingredients
- and cooking techniques

In developing and testing the recipes, USDA made sure the ingredients were purchased in a lowfat form, provided the overall quality of the product was not affected. For example:

- ▶ All raw meat ingredients were specified to be lowfat. The ground beef, for instance, had no more than 24 percent fat. Where possible, it was cooked prior to being added to the product so the fat could be drained.
- Chicken was either purchased skinless or the skin was removed prior to cooking.
- Mayonnaise and dairy products, such as milk, yogurt, and cheese, were purchased in the lowfat form provided this did not lessen the final quality.

In addition, main entrees were prepared with a minimal amount of fat. For example:

- No products were fried.
- All sauteed items were prepared with a small amount of oil.

# Baked goods were also specially prepared. For example:

- ▶ The amount of margarine or butter was reduced by substituting lowfat yogurt and applesauce for a percentage of the fat.
- Whole eggs were replaced with egg whites.
- Baking pans were either ungreased or lightly sprayed with vegetable oil.

You can use these same techniques to reduce fat without losing flavor in the recipes you already have.

# Some Tips on Modifying And Standardizing Recipes

Any recipe can be modified to reflect new tastes or changing needs. The recipes in this collection may give you ideas for modifying the recipes you're already using — by adding or substituting new ingredients, for example, and changing your cooking techniques.

As you make changes, it's important to modify first, then standardize.

# Standardized recipes have many advantages:

A standardized recipe is one that has been tried, adapted, and retried several times for use by a given foodservice operation and has been found to:

produce the same good results and yield every time when the exact procedures are used with the same type of equipment and the same quantity and quality of ingredients. Using a standardized recipe ensures that:

- the same amount of product is produced each time
- the same portion size is provided each time

Menu planning can be more consistent because:

- there is a predictable yield
- costs are easier to control
- inventory is easier to control

In addition, when the same good results can be produced time after time:

- foodservice workers have more confidence in what they are doing and need less supervision
- and managers can be sure the nutrient analysis of a recipe will be accurate as long as ingredients and preparation methods remain the same

# When you decide to modify a recipe, start by making 25 portions. In addition:

- Change *only one ingredient* at a time. Keep other ingredients the same as in the original recipe.
- Record clear descriptions of foods substituted in exact amounts.
- If increasing or decreasing an ingredient, do so in increments of 1/4 to 1/2 of the amount called for in the original recipe.
- Follow preparation instructions closely and record any changes you may make.
- Do not make further changes or a larger size recipe until the first modification has produced a high-quality product.

# Once you have successfully prepared 25 portions of a recipe you are modifying:

- Set up taste panels to evaluate the product for appearance, consistency, texture, flavor, and overall acceptability.
- Reproduce at 50 and 100 servings before increasing the recipe to the number needed for your meal service.
- Instruct foodservice personnel about how and why recipes have been modified.

### It's important to also:

- Weigh the total volume of recipes at 50 and 100 servings and record the weight.
- Weigh each serving and record the weight.

The weight of the total recipe and the weight of each serving are important for nutrient analysis.

## Reference

### Weights and Measures Equivalencies

3 teaspoons = 1 tablespoon (1/2 fluid ounce)

2 tablespoons = 1/8 cup (1 fluid ounce)

4 tablespoons = 1/4 cup (2 fluid ounces)

5-1/3 tablespoons = 1/3 cup (2-2/3 fluid ounces)

8 tablespoons = 1/2 cup (4 fluid ounces)

10-2/3 tablespoons = 2/3 cup (5-1/3 fluid ounces)

12 tablespoons = 3/4 cup (6 fluid ounces)

14 tablespoons = 7/8 cup (7 fluid ounces)

16 tablespoons = 1 cup (8 fluid ounces)

2 cups = 1 pint

2 pints = 1 quart

4 quarts = 1 gallon

1 gram = 0.035 ounces

1 ounce = 28.38 grams

16 ounces = 1 pound

1 pound = 454 grams

1 kilogram = 2.21 pounds

Reference 39

### **Metric Conversion Table**

To change	То	Multiply by	
ounces (oz)	grams (g)	28.38	
pounds (lb)	kilograms (kg)	0.45	
teaspoons (tsp)	milliliters (ml)	4.93	
tablespoons (tbsp)	milliliters (ml)	14.79	
fluid ounces (fl oz)	milliliters (ml)	29.58	
cups (c)	liters (l)	0.24	
pints (pt)	liters (l)	0.47	
quarts (qt)	liters (l)	0.946	
gallons (gal)	liters (l)	3.8	

### **Basic Cuts and Shapes**

1. *Small dice:* 1/4-inch cube

2. *Medium dice*: 1/2-inch cube

3. *Large dice*: 3/4-inch cube

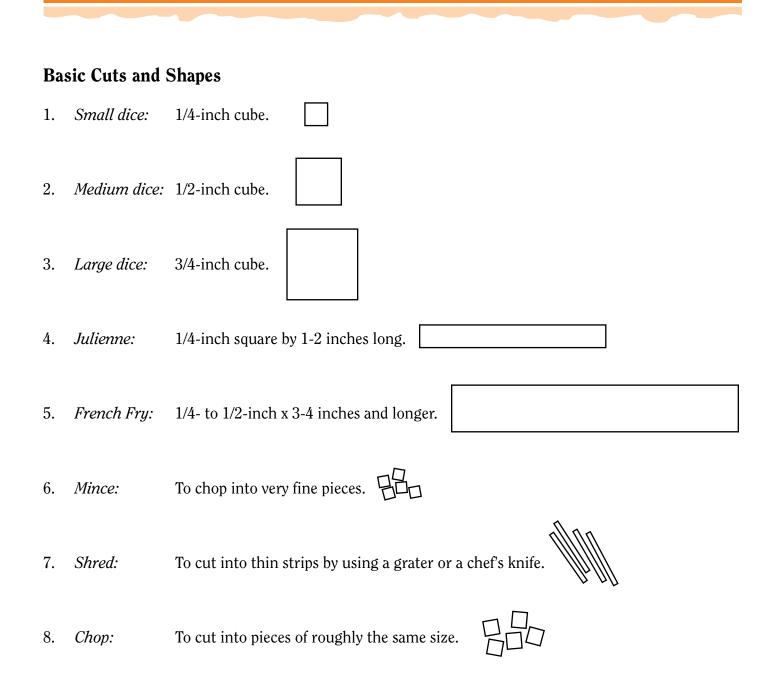
4. *Julienne*: 1/4-inch square by 1-2 inches long

5. French Fry: 1/4- to 1/2-inch square by 3-4 inches and longer

6. *Mince*: To chop into very fine pieces

7. *Shred:* To cut into thin strips by using a grater or a chef's knife

8. *Chop:* To cut into pieces roughly the same size



Reference 41

# Noícs

Notes 43